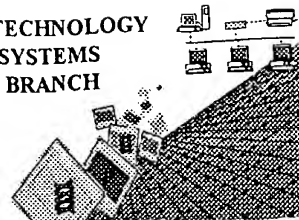


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BIOTECHNOLOGY
SYSTEMS
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**RAW SEQUENCE LISTING
ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/857,815A
Source: _____
Date Processed by STIC: 3/18/2002

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
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TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER
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Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
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Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
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Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

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BC #9



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RAW SEQUENCE LISTING

DATE: 03/18/2002

PATENT APPLICATION: US/09/857,815A

TIME: 15:23:24

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Output Set: N:\CRF3\03182002\I857815A.raw

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3 <110> APPLICANT: Takeda Chemical Industries, Ltd.
5 <120> TITLE OF INVENTION: Betacellulin Mutein
7 <130> FILE REFERENCE: P2001-232
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/857,815A
C--> 9 <141> CURRENT FILING DATE: 2002-03-05
9 <150> PRIOR APPLICATION NUMBER: JP 10-350377
10 <151> PRIOR FILING DATE: 1998-12-09
12 <150> PRIOR APPLICATION NUMBER: JP 11-55326
13 <151> PRIOR FILING DATE: 1999-03-03
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19 <212> TYPE: PRT
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24 1 5 10 15
25 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
26 20 25 30
27 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
28 35 40 45
29 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
30 50 55 60
31 Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Asp
32 65 70 75
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 76
36 <212> TYPE: PRT
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41 1 5 10 15
42 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
43 20 25 30
44 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
45 35 40 45
46 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
47 50 55 60
48 Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val
49 65 70 75
51 <210> SEQ ID NO: 3
52 <211> LENGTH: 47
53 <212> TYPE: PRT

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,815A

DATE: 03/18/2002

TIME: 15:23:24

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58 1 5 10 15
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60 20 25 30
61 Val Cys Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Asp
62 35 40 45
64 <210> SEQ ID NO: 4
65 <211> LENGTH: 46
66 <212> TYPE: PRT
67 <213> ORGANISM: Human
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71 1 5 10 15
72 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
73 20 25 30
74 Val Cys Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val
75 35 40 45
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79 <212> TYPE: PRT
80 <213> ORGANISM: Artificial sequence
82 <220> FEATURE:
83 <223> OTHER INFORMATION: amino acid sequence of betacellulin mutein (BTC 1-76, 78-80)
85 <400> SEQUENCE: 5
86 Asp Gly Asn Ser Thr Arg Ser Pro Glu Thr Asn Gly Leu Leu Cys Gly
87 1 5 10 15
88 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Gln Ser Lys Arg Lys
89 20 25 30
90 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
91 35 40 45
92 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
93 50 55 60
94 Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Leu Phe Tyr
95 65 70 75
97 <210> SEQ ID NO: 6
98 <211> LENGTH: 78
99 <212> TYPE: PRT
100 <213> ORGANISM: Artificial sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: amino acid sequence of betacellulin mutein (BTC 1-76, 78,
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105 <400> SEQUENCE: 6
106 Asp Gly Asn Ser Thr Arg Ser Pro Glu Thr Asn Gly Leu Leu Cys Gly
107 1 5 10 15
108 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
109 20 25 30
110 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
111 35 40 45

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,815A

DATE: 03/18/2002

TIME: 15:23:24

Input Set : A:\SEQ01044rev2.txt

Output Set: N:\CRF3\03182002\I857815A.raw

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118 <211> LENGTH: 77
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125 <400> SEQUENCE: 7
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127 1              5              10              15
128 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
129      20              25              30
130 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
131      35              40              45
132 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
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139 <212> TYPE: PRT
140 <213> ORGANISM: Artificial sequence
142 <220> FEATURE:
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146 Asp Gly Asn Ser Thr Arg Ser Pro Glu Thr Asn Gly Leu Leu Cys Gly
147 1              5              10              15
148 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
149      20              25              30
150 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
151      35              40              45
152 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
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159 <212> TYPE: PRT
160 <213> ORGANISM: Artificial sequence
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163 <223> OTHER INFORMATION: amino acid sequence of betacellulin mutein (BTC 1-77, 80)
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166 Asp Gly Asn Ser Thr Arg Ser Pro Glu Thr Asn Gly Leu Leu Cys Gly
167 1              5              10              15
168 Asp Pro Glu Glu Asn Cys Ala Ala Thr Thr Thr Gln Ser Lys Arg Lys
169      20              25              30

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,815A

DATE: 03/18/2002

TIME: 15:23:24

Input Set : A:\SEQ01044rev2.txt

Output Set: N:\CRF3\03182002\I857815A.raw

170 Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys Ile Lys
 171 35 40 45
 172 Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys Val Cys
 173 50 55 60
 174 Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Asp Phe
 175 65 70 75

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179 <212> TYPE: PRT

180 <213> ORGANISM: Artificial sequence

182 <220> FEATURE:

183 <223> OTHER INFORMATION: amino acid sequence of betacellulin mutein (BTC 31-76, 78-

80)

185 <400> SEQUENCE: 10

186 Arg Lys Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys
 187 1 5 10 15
 188 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
 189 20 25 30
 190 Val Cys Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Leu Phe
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192 Tyr

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195 <211> LENGTH: 48

196 <212> TYPE: PRT

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199 <220> FEATURE:

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202 <400> SEQUENCE: 11

203 Arg Lys Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys
 204 1 5 10 15
 205 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
 206 20 25 30
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212 <212> TYPE: PRT

213 <213> ORGANISM: Artificial sequence

215 <220> FEATURE:

216 <223> OTHER INFORMATION: amino acid sequence of betacellulin mutein (BTC 31-76, 78)

218 <400> SEQUENCE: 12

219 Arg Lys Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys
 220 1 5 10 15
 221 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
 222 20 25 30
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 224 35 40 45

226 <210> SEQ ID NO: 13

227 <211> LENGTH: 49

228 <212> TYPE: PRT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,815A

DATE: 03/18/2002

TIME: 15:23:24

Input Set : A:\SEQ01044rev2.txt

Output Set: N:\CRF3\03182002\I857815A.raw

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234 <400> SEQUENCE: 13
 235 Arg Lys Gly His Phe Ser Arg Cys Pro Lys Gln Tyr Lys His Tyr Cys
 236 1 5 10 15
 237 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
 238 20 25 30
 239 Val Cys Asp Glu Gly Tyr Ile Gly Ala Arg Cys Glu Arg Val Asp Phe
 240 35 40 45
 241 Tyr

243 <210> SEQ ID NO: 14
 244 <211> LENGTH: 48
 245 <212> TYPE: PRT
 246 <213> ORGANISM: Artificial sequence
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 253 1 5 10 15
 254 Ile Lys Gly Arg Cys Arg Phe Val Val Ala Glu Gln Thr Pro Ser Cys
 255 20 25 30
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 257 35 40 45

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 266 aactgtgcag ctaccaccac acaatcaaag cggaaaggcc acttctctag gtgcccgaag 120
 267 caatacaagc attactgcat caaagggaga tgccgcttcg tgggtggccga gcagacgccc 180
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270 <210> SEQ ID NO: 16
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 272 <212> TYPE: DNA
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 277 aactgtgcag ctaccaccac acaatcaaag cggaaaggcc acttctctag gtgcccgaag 120
 278 caatacaagc attactgcat caaagggaga tgccgcttcg tgggtggccga gcagacgccc 180
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281 <210> SEQ ID NO: 17
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/857,815A

DATE: 03/18/2002

TIME: 15:23:25

Input Set : A:\SEQ01044rev2.txt

Output Set: N:\CRF3\03182002\I857815A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:534 M:282 W: Numeric Field Identifier Missing, <212> is required.

L:550 M:282 W: Numeric Field Identifier Missing, <212> is required.